CLAIMS:

1. A method for production of organic plant growth media from sawmill waste, said process comprising the steps of:-

introducing comminuted sawmill waste into an inlet of a conveyor mechanism containing a body of heated water including a chemical treatment composition selected from a pH modifier, plant nutrients, pesticides, herbicides, microbicides, parasiticides, fungicides or any combination thereof;

submerging said sawmill waste in said body of heated water for a predetermined period of time to kill microorganisms, insects, plant and animal parasites and the like whilst transporting said treated sawmill waste towards an outlet of said conveyor mechanism; and

at least partially dewatering said treated sawmill waste to a predetermined moisture content.

2. A method as claimed in claim 1 wherein said comminuted sawmill waste comprises material of sawmill waste including sawdust, bark and woodchips alone or mixed with up to 20% ww of peat, spent mushroom compost, animal or chicken manure, sewerage sludge, waste vegetables or vegetable scraps, meat or bone meal of animal origin or the like or selected combinations thereof.

3. A method as claimed in claim 2 wherein said sawmill waste comprises particulate pine bark having a layer of exogenous bark adhering to endogenous bark said method further including the step of at least partially separating said endogenous bark and said exogenous bark.

4. A method as claimed in claim 3 wherein at least partial separation of said exogenous bark and said endogenous bark is effected in said conveyor system by the application of mechanical shear forces to said particulate pine bark.

5. A method as claimed in claim 3 wherein at least partial separation of said exogenous bark and said endogenous bark is effected during or subsequent to the step of at least partial dewatering of said sawmill waste.

6. A method as claimed in claim 1 wherein said body of water is heated to a temperature in the range 85° to 125°C.

7. A method as claimed in claim 6 wherein said body of water is heated to a temperature in the range 100° to 110°C.

8. A method as claimed in claim 1 wherein said sawmill waste suitably is comminuted to a particle size where substantially all said comminuted sawmill waste passes through a 12 mm screen.

9. A method as claimed in claim 1 wherein said treated sawmill waste is at least partially dewatered in said conveyor mechanism adjacent an outlet port thereof.

10. A method as claimed in claim 1 wherein said treated sawmill waste is at least partially dewatered under the influence of mechanical pressure.

11. A method as claimed in claim 1 wherein said treated sawmill waste is at least partially dewatered in a rotary dewatering apparatus.

12. A method as claimed in claim 3 wherein said treated sawmill at

least partially dewatered treated sawmill waste containing at least partially separated exogenous bark and endogenous bark is subjected to mechanical shear under pressure to loosen fibrous bonds in said at least partially dewatered treated sawmill waste to enhance moisture retention therein.

13. An apparatus for manufacture of organic plant growth media from sawmill waste, said apparatus comprising:-

a conveyor in the form of a screw auger rotatably housed in a tubular body, said conveyor being inclined with an inlet port located at a lower end of said tubular body and an outlet port at an upper end of said tubular body;

a drive mechanism for said screw auger;

a heating device to heat a body of water located, in use, in said tubular body; and,

a dewatering station located adjacent said outlet port, said dewatering station, in use, at least partially dewatering treated sawmill waste in said tubular body.

14. An apparatus as claimed in claim 13 wherein said inlet port comprises an upright tubular member in fluid communication with said lower end of said tubular body.

15. An apparatus as claimed in claim 14 wherein said inlet port, in use, accommodates portion of a body of water located within said conveyor with an upper surface of said portion being located above a feed end of said screw auger to form a liquid seal between said inlet port and a bore of said tubular body.

16. An apparatus as claimed in claim 15 wherein said inlet port includes a feed mechanism to assist in directing buoyant feed material towards said feed end of said screw auger.

17. An apparatus as claimed in claim 14 including a metering device to meter water into said conveyor.

18. An apparatus as claimed in claim 13 including one or more metering devices to deliver one or more chemical treatment compositions to said inlet port.

19. An apparatus as claimed in claim 13 wherein said heating device is located adjacent said lower end of said tubular body.

20. An apparatus as claimed in claim 13 wherein said heating device comprises a steam generator fluidically coupled adjacent a lower end of said tubular body.

21. An apparatus as claimed in claim 13 wherein said dewatering station comprises a region of tubular body having a plurality of apertures therein through which to drain water from said treated sawmill waste.

22. An apparatus as claimed in claim 21, wherein the dewatering station is adapted to apply a compressive force to treated sawmill waste contained therein.

23. An apparatus as claimed in claim 22 wherein said dewatering station comprises a region of said screw auger wherein the pitch of said auger is reduced to cause, in use, compression of said treated sawmill waste to assist in dewatering thereof.

24. An apparatus as claimed in claim 22 wherein said dewatering

station comprises a region of said conveyor where respective diameters of said screw auger and an adjacent region of said tubular body are reduced to cause, in use, compression of said treated sawmill waste to assist in dewatering thereof.

25. An apparatus as claimed in claim 13 wherein said dewatering station additionally comprises a rotatable screen or the like.

26. An apparatus as claimed in claim 13 including a shredding device to subject fibrous materials in at least partially dewatered organic media to mechanical shear under pressure to loosen fibrous bonds in said at least partially dewatered treated sawmill waste to enhance moisture retention therein.

27. An organic plant growth medium whenever produced in accordance with the method of any one of claims 1 to 12.

28. An organic plant growth medium according to claim 27 incorporating a colorant denoting properties of said growth medium.

29. A method of producing an organic plant growth medium with the apparatus of any one of claims 13 to 26.

30. An organic plant growth medium whenever produced by the apparatus of any one of claims 13 to 36.

31. A shredder for use in accordance with the method of claim 12, said shredder adapted in use to force at least partially dewatered treated sawmill waste through a screen by application of a mechanical shear force to said treated sawmill waste.